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Executive Director
Arthur L. Dao

February 2, 2017

Mr. Malcom Dougherty
Director
California Department of Transportation
1120 N Street
Sacramento, CA 94273

RE: Proposal to Amend California Code of Regulations Title 21,
Division 2, Chapter 16: Compatibility Specifications for Automatic
Vehicle Identification Equipment

Dear Mr. Dougherty, *Malcom*

The Alameda County Transportation Commission would like to express its strong support to Caltrans for its effort to transition from the current Automatic Vehicle Identification specification documented in California Code of Regulations, Title 21, Division 2, Chapter 16, commonly referred to as Title 21 protocol, to the International Standards Organization (ISO) 18000-63 specification, known as the 6C protocol.

The current Title 21 protocol was developed over 20 years ago to fulfill the California legislative mandate that requires the State's toll operators to ensure each vehicle only needs to use a single Radio Frequency Identification (RFID) device for electronic tolling. However the Title 21 protocol has limitations, including high cost of transponders, limited number of vendors that produce transponders and readers, and performance issues, which the newer 6C protocol can address. Therefore, with the California Toll Operators Committee (CTOC) Executive Committee's authorization, the CTOC Technical Subcommittee developed the CTOC 6C Transition Plan to examine the feasibility and timeline of a transition from the Title 21 protocol to the 6C protocol. As a result of the transition planning effort, the CTOC Executive Committee asked Caltrans to proceed with implementing regulatory changes through the Office of Administrative Law to add 6C as an additional protocol that all California toll agencies will support.

The 6C protocol offers multiple advantages over the Title 21 protocol. Alameda CTC highlights the following advantages:

- Significantly lower transponder costs, with 6C "sticker transponders" ranging from \$0.40 to \$2.00 and 2-position switchable transponders approximately \$10, compared to Title 21 standard transponders ranging from \$10-\$15 and switchable transponders from \$13-\$17;
- An established tolling 6C programming standard used by the 6C Toll Operators Coalition (6C TOC), which reduces implementation risk by ensuring vendors and agencies use a proven, already defined standard;
- Multiple vendors of 6C transponders across several industries, increasing availability of transponders and competition amongst vendors;
- An existing 6C equipment certification testing process ensuring compatibility and performance across vendors; and
- As a protocol that does not require a battery, many more transponder types will be available such as inexpensive "sticker tags", transparent headlight tags, and switchable transponders, which will give agencies more avenues to market and distribute transponders to meet a variety of customer needs.

The transition to the 6C protocol will require CTOC agencies be provided time to make the necessary changes to support 6C. Therefore, the transition deadline of January 2019 is reasonable to allow agencies to develop a 3-position switchable transponder, make timely modifications to toll systems, and educate customers on changes (e.g., no beeping, mounting instructions). However, the sooner the transition is made, the sooner California will reap savings and benefits.

The Alameda County Transportation Commission appreciates the work that Caltrans is doing to make this transition happen. If our staff can be of any assistance, please contact Liz Rutman, Express Lanes Operations Manager, at (510) 208-7483.

Sincerely,



Arthur L. Dao
Executive Director
Alameda County Transportation Commission

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